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COYOTE CREEK PARKWAY: POTENTIAL WETLAND AND RIPARIAN MITIGATION SITE IDENTIFICATION AND INITIAL PRIORITIZATION

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TABLE OF CONTENTS

1.0 INTRODUCTION......1
1.1 PROJECT DESCRIPTION......1
1.2 PROJECT PROPONENT/CONTACT INFORMATION......4

2.0 METHODS......5
2.1 INTRODUCTION......5
2.2 MITIGATION SITE CRITERIA......5
2.3 BACKGROUND MATERIALS REVIEW......6
2.3.1 Consultations with District Staff......6
2.3.2 Consultations with HTH Senior Staff......6
2.3.3 Review of Aerial Photos/Maps......6
2.4 FIELD RECONNAISSANCE METHODS......7
2.4.1 Introduction......7
2.4.2 Location......7
2.4.3 Approximate Size......7
2.4.4 Potential Use......8
2.4.5 Existing Site Features/Conditions......8
2.4.6 Conceptual Design Opportunities......8
2.4.7 Constraints......8
2.4.8 Future Needs......8
2.5 TOPOGRAPHIC SURVEYS......8
2.6 HYDROLOGICAL EVALUATION......9
2.7 SITE PRIORITIZATION......9

3.0 RESULTS......11
3.1 INTRODUCTION......11
3.2 ANALYSIS OF POTENTIAL MITIGATION SITES......11
3.2.1 Coyote Creek Potential Mitigation Site 1 West......13
3.2.2 Coyote Creek Potential Mitigation Site 1 East......14
3.2.3 Coyote Creek Potential Mitigation Site 2......15
3.2.4 Coyote Creek Potential Mitigation Site 3......16
3.2.5 Coyote Creek Potential Mitigation Site 4......19
3.2.6 Coyote Creek Potential Mitigation Site 5......22
3.2.7 Coyote Creek Potential Mitigation Site 6......25
3.2.8 Coyote Creek Potential Mitigation Site 7......28
3.2.9 Coyote Creek Potential Mitigation Site 8......31
3.2.10 Coyote Creek Potential Mitigation Site 9......33
3.2.11 Coyote Creek Potential Mitigation Site 10A......36
3.2.12 Coyote Creek Potential Mitigation Site 10B......38
3.2.13 Coyote Creek Potential Mitigation Site 11......40
3.2.14 Coyote Creek Potential Mitigation Site 12......44
3.3 PRIORITIZATION......46

4.0 CONCLUSIONS......48

4.1 RECOMMENDATIONS 48

5.0 REFERENCES 49

Tables:

Table 1. Mitigation Site Ranking Categories 10
Table 2. Potential Mitigation Site Numbers, Names, and Approximate Sizes 11
Table 3. Mitigation Site Rankings 47

Figures:

Figure 1. Site/Vicinity Map 2
Figure 2. Location of Potential Coyote Creek Parkway SCVWD Mitigation Sites 3
Figure 3. Site 3 Plan View 17
Figure 4. Site 4 Plan View 20
Figure 5. Site 5 Plan View 23
Figure 6. Site 6 Plan View 26
Figure 7. Site 7 Plan View 29
Figure 8. Site 8 Plan View 32
Figure 9. Site 9 Plan View 34
Figure 10. Sites 10A and 10B Plan View 37
Figure 11. Site 11 Plan View 41

Appendices:

Appendix A. Location of District Sites 6, 7, 8, and 9, VTA Riverside Drive Mitigation, and the City of San Jose's Bailey Avenue Mitigation Site 50

1.0 INTRODUCTION

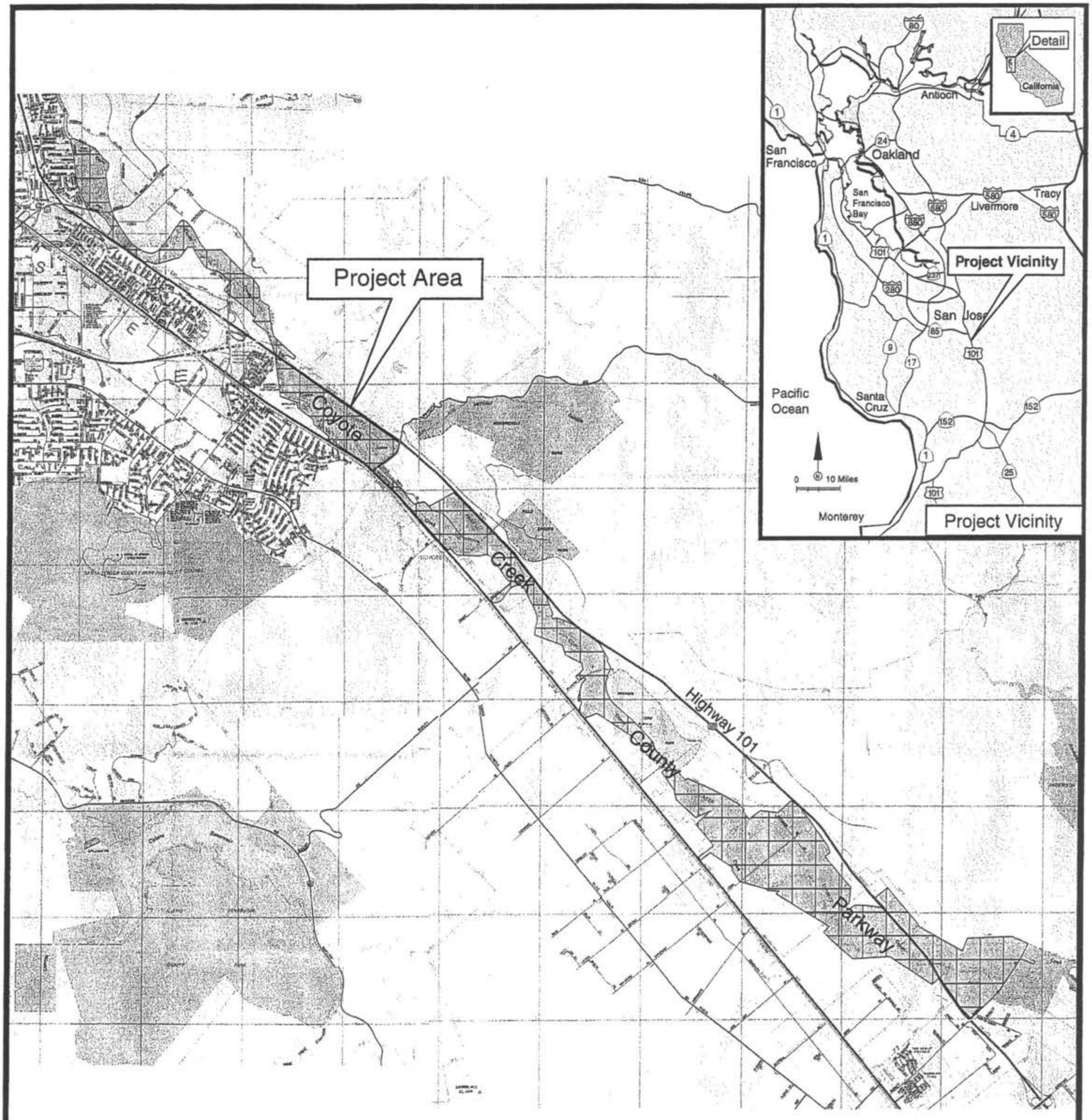
1.1 PROJECT DESCRIPTION

The Santa Clara Valley Water District (District) is searching for suitable sites for creating and/or restoring wetland and riparian habitat to mitigate impacts associated with the District's stream maintenance and flood protection projects. As part of this effort, the District is investigating potential wetland and riparian mitigation sites within the Santa Clara County Parks and Recreation Department's (County Parks) Coyote Creek Parkway. This effort was initiated in spring 2000 in response to the potential opportunity for the District to acquire rights to use lands along the Coyote Creek Parkway for mitigation in consideration for partial cost sharing of a County Parks bridge at Burnett Avenue. Coyote Creek is one of the County's major streams, and the Coyote Creek Parkway encompasses one of the largest stretches of undeveloped valley land potentially suitable for creek and creek-side restoration and enhancement in the San Francisco Bay Basin of Santa Clara County.

The Coyote Creek Parkway is located in the eastern part of Santa Clara County, California (Figure 1). The Coyote Creek Parkway comprises Coyote Creek and immediately adjacent lands that extend continuously from Anderson Dam downstream approximately 15 miles to Coyote Hellyer County Park. The Coyote Creek Parkway generally parallels Highway 101. The Coyote Creek Park chain continues from Hellyer County Park downstream approximately 3.6 miles to Kelley Park; however, this area is not under the jurisdiction of County Parks. An earthen equestrian trail, paved bicycle and pedestrian path, recreational parks and lakes, and abandoned gravel ponds are several of the Coyote Creek Parkway features.

The entire Coyote Creek Parkway was considered during the potential mitigation site search effort. This report, however, focuses only on the section of the Coyote Creek Parkway from Burnett Avenue to just north of Silver Creek Valley Road where all the potential sites are located. Adjacent land uses along this stretch include residential, freeway, golf courses, and agricultural. This reach of Coyote Creek supports mostly high quality, native riparian vegetation dominated by mature California sycamore (*Platanus racemosa*) and Fremont cottonwood (*Populus fremontii* spp. *fremontii)*. Other species include valley oak (*Quercus lobata*), coast live oak (*Quercus agrifolia*), willow (*Salix* spp.), blue elderberry (*Sambucus mexicana*), and several others.

In June and July 2000, H. T. Harvey & Associates and Philip William & Associates, Ltd. (PWA) conducted field reconnaissance along Coyote Creek. Eleven preliminary sites were identified as potential wetland and/or riparian mitigation sites. A twelfth preliminary site was later identified by the District. The location of these sites along the Coyote Creek Parkway is shown in Figure 2. This report summarizes the initial opportunities and constraints of each site for habitat creation or restoration, and ranks the sites in terms of their mitigation development potential. It also describes the methods leading up to site identification and prioritization. Recommendations for future work are also included.



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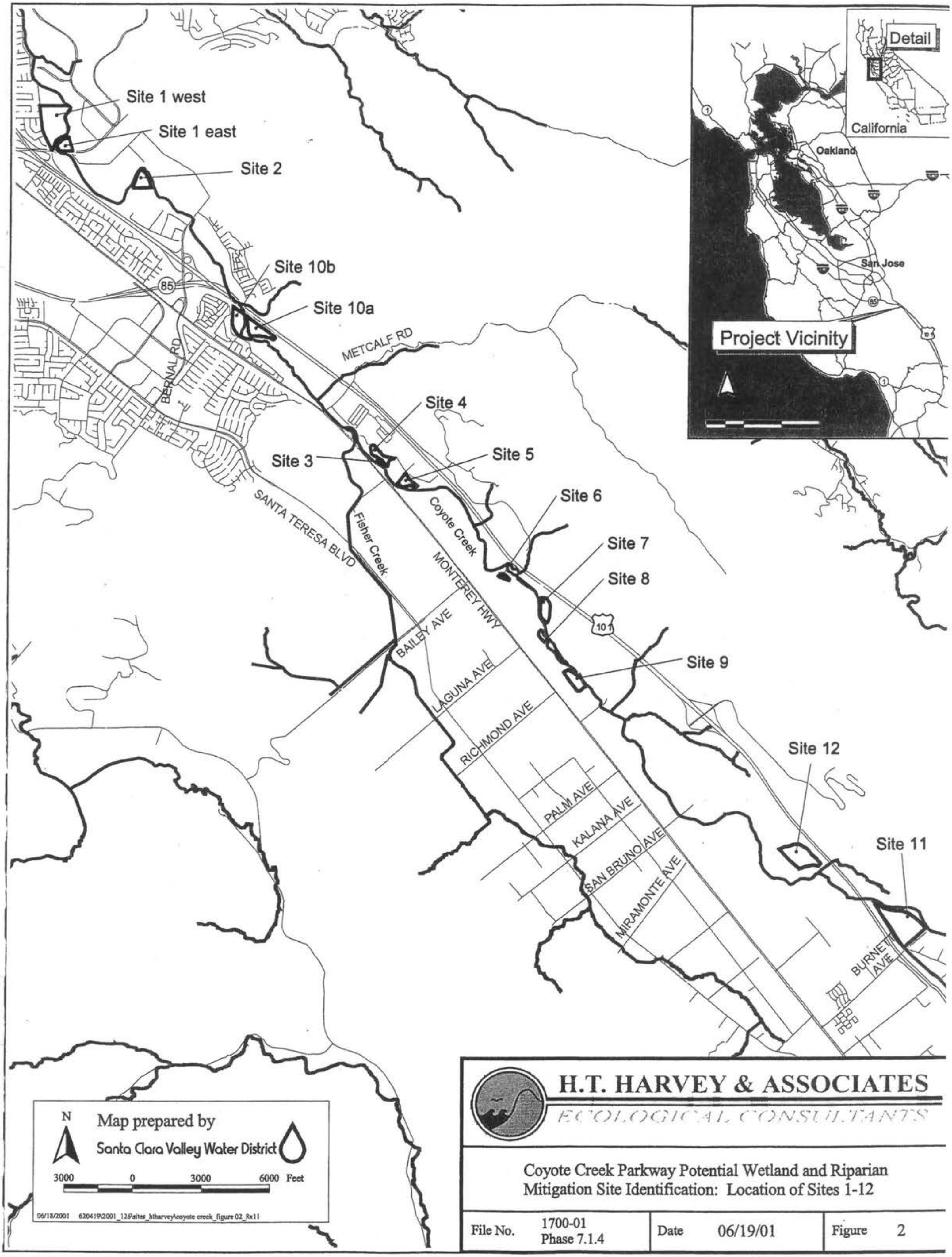
Coyote Creek Parkway Potential Wetland and Riparian Mitigation Site Identification: Site / Vicinity Map

File No. **1700-01 Phase 7.1.4**	Date **6/19/01**	Figure **1**



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Coyote Creek Parkway Potential Wetland and Riparian Mitigation Site Identification: Location of Sites 1-12

File No.	1700-01 Phase 7.1.4	Date	06/19/01	Figure	2

1.2 PROJECT PROPONENT/CONTACT INFORMATION

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2.0 METHODS

2.1 INTRODUCTION

The steps leading up to the identification of the twelve potential mitigation sites along Coyote Creek included a three-fold approach. A set of criteria was initially compiled identifying, in general, the parameters for suitable mitigation. The next step involved a background materials review consisting of interviews with District, PWA, and HTH staff and an examination of street maps and aerial photos. The final step in the site identification process involved field reconnaissance of the Coyote Creek Parkway focusing on potentially viable areas identified during the background materials review and areas detected in the field. The opportunities and constraints of each site were recorded during these visits and included such factors as approximate site size, existing features/conditions, conceptual design opportunities, potential conflicting site uses, and development needs. Expanded descriptions of the methods for identifying the potential mitigation sites are included below. The descriptions include initial site assessments and re-evaluations based on additional information obtained as the project progressed.

2.2 MITIGATION SITE CRITERIA

Criteria were developed describing the attributes of suitable mitigation creation sites. These criteria guided the mitigation search during the background materials review and field reconnaissance stages and were modified as potential mitigation sites were identified. These criteria mainly focused on existing conditions of the site. They included the following:

- Areas where the riparian corridor appeared to be absent or sparse compared to adjacent areas;
- Areas with degraded conditions that may be improved;
- Open, unforested land adjacent to, but outside of, the existing riparian corridor that might provide an opportunity for wetland creation or riparian forest expansion;
- Sites that totaled at least 0.25 acres in size;
- Sites that were adjacent to proposed or existing mitigation;
- Areas that were relatively removed from existing buildings or infrastructure such as power lines, paved roads, trails, etc.

As sites were identified based upon these basic criteria, sites were re-examined using more specific parameters involving future constraints. These criteria mainly involved future conditions. Examples of these criteria include:

- Site is relatively accessible for mitigation construction;
- Use of site for mitigation will not conflict with current or future land use(s);
- Irrigation water for riparian or wetland mitigation readily available;
- Access for mitigation site maintenance available.

2.3 BACKGROUND MATERIALS REVIEW

2.3.1 Consultations with District Staff

In spring and early summer 2000, HTH biologists met with District staff to discuss potential areas along the Coyote Creek Parkway that could be used to mitigate riparian and wetland impacts caused by District projects. Through the review of aerial photos and maps, District staff suggested to HTH biologists potential areas in which mitigation sites might be found, and areas that must be avoided due to conflicting land uses. These "off-limits" areas were initially identified by County Parks staff based on existing or potential future land uses that may pose a conflict. County Parks initially identified the following areas as unavailable:

- Silicon Valley Boulevard bridge widening and project mitigation area just downstream of the bridge.
- The proposed Tennant Road Site of the Valley Transportation Authority (VTA) Measure B Consolidated Mitigation Project. This site is located from Silicon Valley Boulevard upstream to the Coyote Creek crossing at Highway 101.
- The proposed Riverside Drive Site of the VTA Measure B Consolidated Mitigation Project. The mitigation is located within an approximately 1-mile reach of Coyote Creek, upstream of Bailey Avenue and downstream of Riverside Drive (Appendix A).
- County Park potential recreational area, from Scheller Avenue (Golf Course Drive) upstream to the remote control aircraft (RCA) park.
- Madrone landfill mitigation area on both sides of Highway 101 south of the RCA park.

2.3.2 Consultations with HTH Senior Staff

Senior staff at HTH (Dan Stephens, Dr. Patrick Boursier, and Dr. Eric Webb) also provided recommendations and anecdotal observations to focus the mitigation site search. Senior staff were consulted because of their familiarity with the Coyote Creek Parkway and involvement in ongoing restoration projects along the creek. Several potential sites located adjacent to the Coyote Creek Golf Course (formerly known as the Riverside Golf Course) near sub-sites within the VTA Riverside Drive Site were recommended (Sites 6, 7, 8, and 9) along with one parcel located just upstream of the Highway 85-101 interchange to the east of Coyote Creek (Sites 10A and 10B). All of these sites and several others were examined for their potential to create wetland and riparian habitat.

2.3.3 Review of Aerial Photos/Maps

Two sets of aerial photos and street maps were consulted in the office prior to the field reconnaissance. Recent aerial photos were examined to gain a visual perspective of the Coyote Creek Parkway and locate open space parcels that could serve as potential wetland and riparian mitigation sites. Air Flight Service flew the most recent set of aerial photos on September 1, 1999. These photos were taken for the Valley Transportation Authority (VTA) Measure B (formerly A+B) Consolidated Mitigation (HTH Project No. 1593-08), a separate project that consisted of designing several mitigation sites along Coyote Creek. The mitigation design concept for this project is outlined in *Santa Clara County Valley Transportation Authority 1996 Measures A+B Transportation Improvement Program Riparian and Wetland Habitats Mitigation and Monitoring Plan* (H. T. Harvey & Associates 2000). The VTA photographs covered only a small portion of the Coyote Creek Parkway area. Older aerial photos (1993) of the entire area of interest were also reviewed and cross-referenced to determine changes in the physical landscape of targeted sites and adjacent areas. The 1993 aerials consisted of blue line copies of cadastral photographs provided by the District and flown by Air Flight Service on November 19, 1993. Street maps compiled by the California State Automobile Association (CSAAA) were also examined to determine the adjacent land uses of targeted sites. Other resources that were consulted included brochures published by County Parks on Hellyer Park and the Coyote Creek Parkway and the District's "Yellow Book" (Maps of Flood Control Facilities and Limits of 1% Flooding) that included a set of maps indicating property boundaries of lands within Santa Clara County.

2.4 FIELD RECONNAISSANCE METHODS

2.4.1 Introduction

Information garnered during the background materials review was used to direct a field reconnaissance of potential mitigation sites within the Coyote Creek Parkway. On June 6, 2000, biologists from HTH (Patrick Reynolds and Sara Chun) assessed the Coyote Creek Parkway via bike on the paved path. Prospective mitigation sites identified in the office were examined in the field, and the extent of each site was mapped and numbered on the CSAAA maps and the 1993 blue line aerial photos provided by the District. Other mitigation sites were identified during the field reconnaissance. In addition, the opportunities and constraints for riparian or wetland habitat restoration at each site were recorded. Factors that were documented in the field or later expanded in the office included site location, approximate size, potential use, existing site features/conditions, conceptual design opportunities, constraints, and needs. These site criteria were designed to provide comparable baseline information for ranking sites against each other. Expanded descriptions of each category are included below.

2.4.2 Location

Each site was described in relation to existing physical features such as Coyote Creek, other water sources, the equestrian trail, the paved path, developments (residential units, golf course, airport, parks), or roads. Using the CSAAA maps and 1993 aerial photos, the site was mapped in the field.

2.4.3 Approximate Size

The approximate size of each site was determined from the aerial photograph field mapping using a Planix Tamaya Digital Planimeter. For some of the parcels, site acreage was garnered through Geographic Information System data provided by the District. The site was delineated on the computer via an electronic file of the 1993 aerial photo, and an acreage value was computed.

2.4.4 Potential Use

The potential use of each site was recorded. This included an initial evaluation of whether riparian or wetland habitat could be created or if existing habitat could be enhanced.

2.4.5 Existing Site Features/Conditions

Existing features on or adjacent to the site were documented. Examples included proximity to the equestrian trail or bike path, proximity to the Coyote Creek riparian corridor or other water sources existence of other physical features on-site such as power lines, culverts, pipes, etc., and adjacent and former land uses.

In addition, existing biological conditions of the site were recorded. Dominant tree, understory, and ruderal species were noted. Invasive, non-native species also present on-site were recorded. The on-site soils were briefly examined.

2.4.6 Conceptual Design Opportunities

A conceptual restoration design was outlined integrating the existing features, conditions, and constraints of the site.

2.4.7 Constraints

Significant factors that could constrain the potential use of the site for wetland or riparian habitat development were also outlined during the site visit. Such factors included inappropriate soils, large-scale grading requirements, inappropriate hydrological regime, distance from a water source, adjacent land uses, size of parcel, impacts to existing vegetation, presence of trails or other access roads, susceptibility to flooding, and physical stability of the site.

2.4.8 Future Needs

Future site needs were also outlined and based on the conceptual restoration opportunities of the site. Much of the needs centered on future access for site construction, irrigation, and maintenance and monitoring efforts.

2.5 TOPOGRAPHIC SURVEYS

Following the field reconnaissance and identification of the potential mitigation sites, District land survey staff conducted topographic surveys of some of the potential sites in August and September 2000. Topographic surveys were not conducted for Sites 1 West, 1 East, 2, and 3 because these sites were classified as having low mitigation potential early in the selection process. No surveys were performed for Site 12 because this site was determined to be unavailable for use soon after its initial identification. Additional topographic data for Site 11 was collected in March 2001.

Global Positioning System technology (GPS) was used to conduct surveys. Spot elevations were taken along transects running horizontally through each site in areas identified by HTH biologists and PWA hydrologists. These transects typically extended from a point in the adjacent Coyote Creek across to the outer edge of the site. Measured features included the potential restoration areas, existing vegetation, the adjacent creek bank, and water surface and thalweg elevations in the adjacent creek bed. All elevations were measured in the North American Vertical Datum of 1988 (NAVD 1988).

2.6 HYDROLOGICAL EVALUATION

PWA identified opportunities and constraints related to wetland and/or riparian habitat mitigation or enhancement activities for each site. The hydrological regime and management of Coyote Creek (i.e., stream flow and groundwater condition) and other pertinent water resources (i.e., the Cross Valley Pipeline, reservoirs, and percolation ponds) were characterized through anecdotal interviews with SCVWD staff (Joe Aguillera, August-October 2000) and HTH staff throughout the course of the site evaluations. In addition, PWA staff performed field reconnaissance and site assessments of the Coyote Creek sites in June 2000. The geomorphic and physical conditions of the sites were characterized. In addition, indications of stream influence and/or available groundwater (zones of sediment deposition and riparian plant growth) were noted. Based on this information, each of the sites was evaluated for its suitability for potential mitigation or enhancement activities.

PWA analyzed the topographic survey data to determine each site's suitability for habitat restoration. Specifically, the topography of each site, as defined by the surveyed transects, was analyzed in an effort to better understand interactions with current hydrologic conditions. The topography was also compared against anticipated flows and groundwater conditions in an effort to characterize potential future interactions with Coyote Creek. PWA collaborated with District survey teams (Dan Gilleland) to determine the characteristics of each survey, interpret the transect data, and evaluate the sites. The locations of additional water resources were also documented as potential supply sources for mitigation efforts.

2.7 SITE PRIORITIZATION

The twelve potential mitigation sites located within the Coyote Creek Parkway were ranked according to their suitability for wetland or riparian habitat mitigation or enhancement. Following the initial field reconnaissance efforts, HTH and PWA classified each site according to a rating of no, low, medium, or high potential based upon the biological and physical site criteria. In the fall 2000, County Parks reviewed the potential mitigation sites and prioritized the sites according to their own methods. Sites were ranked with a grade of "A", "B", and "0" from highest potential to lowest potential, respectively. County Parks primarily reviewed the sites to determine if using them for mitigation would conflict with other County Parks uses. Examples of uses that would constrain mitigation site development included alternative, future uses for the site by County Parks or their lessees not identified during the preliminary review (see Section 2.3.1), or the inability to move the paved path to the outside of the proposed mitigation area.

Finally, after evaluation of the topographic survey information, the HTH-PWA and County Parks ranking methods were consolidated to form a uniform ranking system. In this document, the sites are ranked on a scale of 1 through 5, from highest to lowest potential for wetland or riparian habitat mitigation or enhancement. Table 1 summarizes the ranking categories.

Table 1. Mitigation Site Ranking Categories

Numerical Ranking	Mitigation Potential
1	High Potential
2	Moderate-High Potential
3	Moderate Potential
4	Moderate-Low Potential
5	Low Potential

The relative ranking was determined based on a comparative evaluation of the following considerations for each site and all site information gathered to date:

- Sites determined to be unavailable for mitigation project use were automatically given a lowest ranking (Rank 5).

- For riparian mitigation, physical separation from the existing riparian corridor was considered unacceptable. These sites were automatically given a lowest ranking (Rank 5).

- Overall benefits to be achieved included: amount of habitat to be created or restored, type of habitat to be created or restored, naturally functional hydrology especially for riparian habitat, and connection of site to other mitigation sites or habitats.

- Overall constraints included: potential impacts to existing resources, questionable soil quality, site instability, potential difficulty in establishing either passive or actively managed wetland or riparian hydrology, potentially prohibitive scope of work required for development (e.g. very large scale grading or lack of equipment access).

3.0 RESULTS

3.1 INTRODUCTION

The combined office and field efforts of District, HTH, and PWA staff resulted in the identification of twelve prospective mitigation sites along the Coyote Creek Parkway. These sites occur between just north of Silver Creek Valley Road to Burnett Avenue (Figure 1). Site 1 is divided into two sub-sites: Site 1 West and Site 1 East. Site 10 is also divided into two sub-sites: Site 10A and Site 10B. The remaining sites comprise single units.

Section 3.2 summarizes the results of the field reconnaissance and presents expanded descriptions of each potential mitigation site based upon the criteria described in Section 2.4. Section 3.3 ranks each potential mitigation site and outlines its priority for mitigation. GIS maps and aerial photographs are provided for all but Sites 1 West, 1 East, 2, and 12 (Figures 3-11). The GIS site maps are superimposed on scanned blue line copies of 1993 cadastral aerial photographs. (Data layers on these maps are from different sources, and the aerial photographs are subject to distortion. The figures are generalized representations of site features. The creek alignment near Site 8 on Figure 8 was modified to represent current conditions.) Sites 6, 7, 8, and 9 are also shown on an oversized aerial map contained in Appendix A. This aerial was originally flown for the VTA Measure B Consolidated Mitigation Project (HTH Project No. 1593-08). It more accurately shows the current conditions of Sites 6, 7, 8, and 9 and their locations in relationship to the VTA Riverside Drive mitigation sub-sites. In addition, the approximate location of the City of San Jose's Bailey Avenue mitigation site is shown. This site also occurs along the reach where Sites 6, 7, 8, and 9 and the VTA Riverside Drive mitigation sub-sites are located.

3.2 ANALYSIS OF POTENTIAL MITIGATION SITES

The twelve potential mitigation sites are listed in Table 2. Please see Sections 3.2.1-3.2.14 for site descriptions of each of the twelve potential mitigation sites.

Table 2. Potential Mitigation Site Numbers, Names, and Approximate Sizes

Site Number	Site Name	Approximate Size (acres)
1 West	Shady Oaks Park West	40
1 East	Shady Oaks Park East	6
2	Enzo Drive	4.7
3	PG&E "B"	1.0
4	PG&E "A"	6.7
5	Coyote Ranch Road	5.9
6	Southeast of Bailey Avenue	1.4
7	Coyote Creek Golf Course North	7.7
8	Coyote Creek Golf Course Northwest	2.0
9	Gravel Ponds	9.7

Site Number	Site Name	Approximate Size (acres)
10A	Coyote Lakes "A"	10.5
10B	Coyote Lakes "B"	10 (pond only) 16.6 (pond, adjacent creek and uplands)
11	Burnett Avenue	39.7
12	Near the Radio Control Model Airplane Area	27

3.2.1 Coyote Creek Potential Mitigation Site 1 West

Name: Shady Oaks Park West

Location: Approximately 50 feet west of Coyote Creek; south of Shady Oaks Park; north of Silver Creek Valley Road

Assessor's Parcel Number: 678 17 004 and 678 17 009

Approximate Size: 40 acres (planimetry of blue line maps)

Potential Use: Expansion of Coyote Creek riparian corridor or seasonal wetlands

Existing Site Features/Conditions: Shady Oaks Park is located to the north of the site. The site is located above the top-of-bank. This site appears to be a remnant English walnut (*Juglans regia*) orchard. It is a disked field that supports ruderal vegetation with black walnut (*Juglans hindsii* ssp. *hindsii*), English walnut, and occasional mature trees including coast live oak and blue elderberry.

Conceptual Design Opportunities: This site could be used to widen the Coyote Creek riparian corridor by planting it with native trees and shrubs. Some of the non-native English and black walnut trees could be removed and others girdled to produce coarse, woody debris and snags, and create more openings for plant establishment. A seasonal wetland could potentially be created by excavating the site to form a bowl that would capture rainfall. Native trees and shrubs could be installed around the wetland perimeter.

Constraints: The site provides excellent opportunities to expand the Coyote Creek riparian corridor. However, since it is located above the top-of-bank, riparian mitigation credits may be somewhat limited. Large scale grading would be required to create seasonal wetlands. The site is an estimated 30 feet above the Coyote Creek channel. Thus, in the absence of large-scale grading, hydrology inputs from Coyote Creek would not be possible. However, the wetland habitat that would be created would likely resemble an inundated gravel pit if the site were excavated to capture groundwater. After the initial identification of this site, County Parks determined that it is under long-term lease to the City of San Jose and may be developed for recreational use.

Topographic Survey Summary: No topographic surveys were performed.

Future Needs: None

Notes: None

Status/Rationale: Rank 5 (low potential). The site is already leased by the City and subject to other future uses.

3.2.2 Coyote Creek Potential Mitigation Site 1 East

Name: Shady Oaks Park East

Location: North of Silver Creek Valley Road, just east of Coyote Creek

Assessor's Parcel Number: 678 14 070

Approximate Size: 6 acres (planimetry of blue line maps)

Potential Use: Oak woodland planting zone, riparian expansion, or seasonal wetlands

Existing Site Features/Conditions: The bike path runs approximately 150-200 feet to the east of Coyote Creek, through the site. Utility lines cross the site from the west bank to the east bank. The area east of the bike path is approximately 20 feet above the channel bottom.

Existing vegetation comprises non-native, annual grassland with native vegetation including California sycamore, coast live oak, coyote brush (*Baccharis pilularis*), and California walnut. Other non-native vegetation includes a patch of giant reed (*Arundo donax*) growing within the eastern side of the channel and continuing for approximately 100 feet, and pepper tree (*Schinus* sp.).

Conceptual Design Opportunities: The non-native grassland area provides an opportunity to plant the site with coast live oaks and other native trees and shrubs. A riparian floodplain could be created by grading down the site and connecting it to Coyote Creek. Seasonal wetland habitat could be created through massive grading of the site.

Constraints: Because the site is located above the top-of-bank, riparian mitigation credits may be somewhat limited. Large scale grading would be required to create seasonal wetlands. The site is an estimated 30 feet above the Coyote Creek channel. Thus, in the absence of large-scale grading, hydrology inputs from Coyote Creek would not be possible. The wetland habitat that would be created would likely resemble an inundated gravel pit if the site were excavated to capture groundwater. The bike path bisects the site and cannot be moved to the outside of the site.

Topographic Survey Summary: No topographic surveys were performed at this site since this site was determined to have low mitigation potential early in the selection process.

Future Needs: None

Notes: None

Status/Rationale: Rank 5 (low potential). The high elevation of the site above the creek and the presence of the paved bike path between the existing riparian corridor and the remainder of the site greatly limit the ability to establish riparian hydrology or create a contiguous expansion of riparian habitat.

3.2.3 Coyote Creek Potential Mitigation Site 2

Name: Enzo Drive

Location: Northeast of proposed Enzo Drive; south and east of former District percolation ponds and Coyote Creek; south of existing Coyote Creek bike trail

Assessor's Parcel Number: 678 05 060

Approximate Size: 4.7 acres (planimetry of blue line maps)

Potential Use: Expansion of Coyote Creek riparian corridor, oak woodland planting zone

Existing Site Features/Conditions: The site is bound to the north by the Coyote Creek bike trail.

The site comprises non-native, annual grassland. It also includes black walnuts and small to medium sized coast live oaks. The site appears to be a former orchard.

Conceptual Design Opportunities: This site could be used to expand the Coyote Creek riparian corridor through planting of native trees and shrubs. Existing orchard trees could be girdled and used to create snags and coarse woody debris. It may also be possible to create seasonal wetland habitat by excavating a bowl that collects rainfall. Native trees and shrubs could be planted around the site's perimeter.

Constraints: It would be necessary to relocate the existing bike trail to the outside (southern) portion of the site for riparian habitat expansion. Riparian mitigation credits may be limited due to the site's location 30 feet above the Coyote Creek channel and beyond the top-of-bank. In order to create seasonal wetlands, large-scale grading would be required. Without large-scale grading, hydrologic inputs from Coyote Creek would be severely limited due to its vertical separation from the channel.

Topographic Survey Summary: No topographic surveys were performed at this site since this site was determined to have low mitigation potential early in the selection process.

Future Needs: None

Notes: None

Status/Rationale: Rank 5 (low potential). The bike trail cannot be moved from the edge of the existing riparian corridor to the outside of the site (per County Parks). The high elevation of the site above the creek and the presence of the paved bike path between the existing riparian corridor and the remainder of the site greatly limit the ability to establish riparian hydrology or create a contiguous expansion of riparian habitat.

3.2.4 Coyote Creek Potential Mitigation Site 3

Name: PG&E "B"

Location: Northwest of existing Coyote Creek bike trail; east of Coyote Creek (between Coyote Creek and the bike trail). See Figure 3.

Assessor's Parcel Number(s): 725 15 008

Approximate Size: 1.0 ac (from GIS of blue line maps)

Potential Use: Riparian forest creation or restoration most likely; potential for wetland creation limited.

Existing Site Features/Conditions: This small site consists of a floodplain terrace located immediately adjacent to the Coyote Creek riparian corridor. The site is wedged between the riparian corridor and the bike path, and is directly west of Site 3. A culvert on the southeast side of the site runs underneath the bike trail. This culvert drains water and an area that appears to be seasonally ponded to the east of the site.

Vegetation on site is mostly herbaceous and weedy. Large Fremont cottonwood, arroyo willow (*Salix lasiolepis*), and mule fat (*Baccharis salicifolia*) occur in the riparian corridor immediately adjacent to the site.

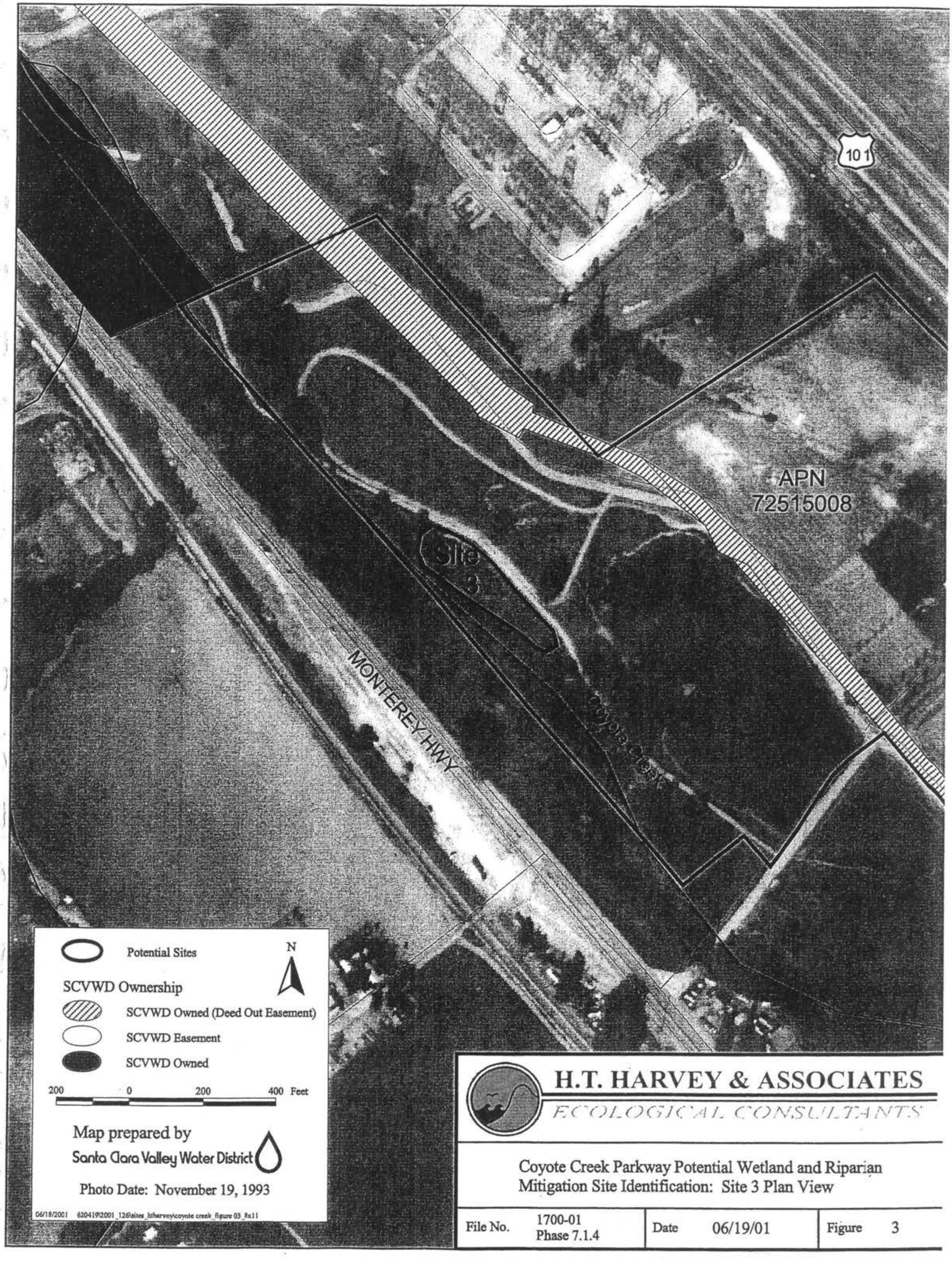
Conceptual Design Opportunities: The existing riparian corridor of Coyote Creek could be expanded onto the site. The site could be graded down an estimated 4-6 feet to form a lower terrace subject to periodic flooding from Coyote Creek. Riparian vegetation could then be established. Depending on the elevation of groundwater, the site could also be designed to intercept groundwater to establish wetland hydrology.

Constraints: The riparian corridor just adjacent to the proposed site contains dense riparian vegetation that could be impacted depending upon the nature of the site grading. This site is small.

Topographic Survey Summary: No topographic surveys were performed at this site since this site was determined to have low mitigation potential and dropped from further consideration early in the selection process.

Needs: Irrigation for plant establishment, access for site monitoring and maintenance.

Notes: None



○ Potential Sites

SCVWD Ownership

▨ SCVWD Owned (Deed Out Easement)

○ SCVWD Easement

● SCVWD Owned

200 0 200 400 Feet

Map prepared by
Santa Clara Valley Water District

Photo Date: November 19, 1993

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Coyote Creek Parkway Potential Wetland and Riparian Mitigation Site Identification: Site 3 Plan View

File No.	1700-01 Phase 7.1.4	Date	06/19/01	Figure	3

Status/Rationale: Rank 5 (low potential). Since the site cannot be connected to Site 4 due to the presence of the paved bike path, the small size of the site makes any benefit minimal, and potential grading disturbance to the existing riparian more problematic. The need to grade down several feet to create riparian hydrology would result in less than 1 acre available for creation of new riparian habitat. Even less area would be available for wetland habitat, as deeper excavation would be required to intercept groundwater.

3.2.5 Coyote Creek Potential Mitigation Site 4

Name: PG&E "A"

Location: East of the Coyote Creek bike path; west of Coyote Ranch Road and the PG&E substation; northwest of existing wetland/pond. See Figure 4.

Assessor's Parcel Number(s): 725 15 008

Approximate Size: 6.7 acres (from GIS of blue line maps)

Potential Use: Wetland creation (Alternative 1) or riparian forest creation/restoration (Alternative 2).

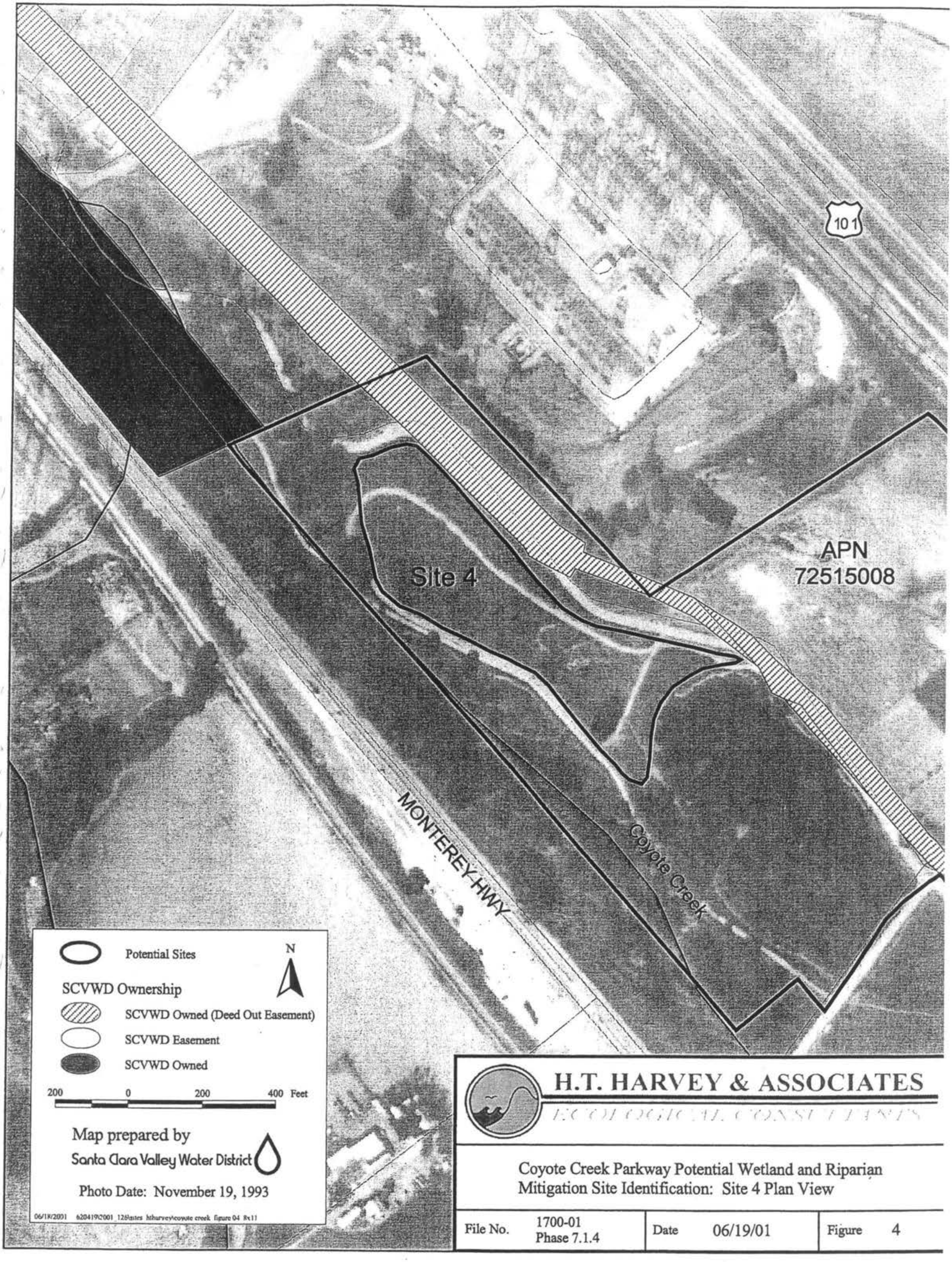
Existing Site Features/Conditions: The site is an open field located east of the Coyote Creek corridor. It is separated from the Coyote Creek corridor by the paved bike path and Site 3. The earthen, equestrian trail runs through the site interior. The majority of the site is vegetated with non-native, annual grassland. The invasive weed, yellow star-thistle (*Centaurea solstitialis*), is predominant on-site. Occasional large sycamores are present on portions of the site. The site is immediately northwest of a large pond/wetland comprising a mosaic of riparian, wetland, and open water habitats. Vegetation includes willow species and cattails (*Typha* spp.). This feature appears to be a former gravel-mining pit.

Conceptual Design Opportunities:

Alternative 1: Wetland Creation. Depending on the location of groundwater, the site could be excavated to the approximate depth of the existing wetland immediately south of the site. A matrix of wetland and riparian habitat could be established. Judging from the estimated water surface elevation in the pond south of the site, extensive grading could be required to reach groundwater.

Alternative 2: Riparian Expansion. Relocate the bike path around the outside of the site, grade down and connect Sites 3 and 4. Establish a broad corridor of medium and high terrace riparian forest, contiguous with existing forest. The terrace would receive occasional overflow from Coyote Creek. If it is not possible to move the bike path until after the vegetation has matured, the path could be re-installed in the interim in its current location, but at a lower elevation. This would diminish habitat value.

Constraints: The equestrian trail that runs through the site would have to be relocated to the site's perimeter. Potential Burrowing Owl (*Speotyto cunicularia*) habitat exists on-site due to the prevalence of open grassland habitat and ground squirrels. Large scale grading would be required, and it could impact existing mature trees. Thus, the amount of grading required, especially for Alternative 1, may not be feasible. Habitat values under Alternative 1 may be compromised due to the proximity of roads and trails along the longest sides of the site.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Site 4
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Map prepared by
Santa Clara Valley Water District
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Coyote Creek Parkway Potential Wetland and Riparian Mitigation Site Identification: Site 4 Plan View

File No.	1700-01 Phase 7.1.4	Date	06/19/01	Figure	4

Topographic Survey Summary: The site was a minimum of 37 feet above the water surface elevation in the adjacent pond.

Future Needs: Relocation of equestrian trail to outside edge of the site (leaving 50 to 60 ft. buffer from road), irrigation for plant establishment, and access for site maintenance and monitoring will be needed. Immediate or eventual relocation of the bike path to the outside edge of the site near Coyote Ranch Road (required for Alternative 2; preferable for Alternative 1); interim re-installation of bike path in existing location after site grading.

Notes: None

Status/rationale: Rank 5 (low potential). Alternative #1 is not feasible, because the water surface in the adjacent pond is likely representative of the local ground water elevation, and the amount of grading required to intercept it is likely prohibitive. Alternative #2 is not feasible because re-locating the bike path to the perimeter of the site is not acceptable to County Parks.

3.2.6 Coyote Creek Potential Mitigation Site 5

Name: Coyote Ranch Road

Location: South of Coyote Ranch Road; east of Coyote Creek. See Figure 5.

Assessor's Parcel Number: 725 15 009

Approximate Size: 5.9 acres (from GIS of blue line maps)

Potential Use: Wetland and/or riparian forest creation or restoration

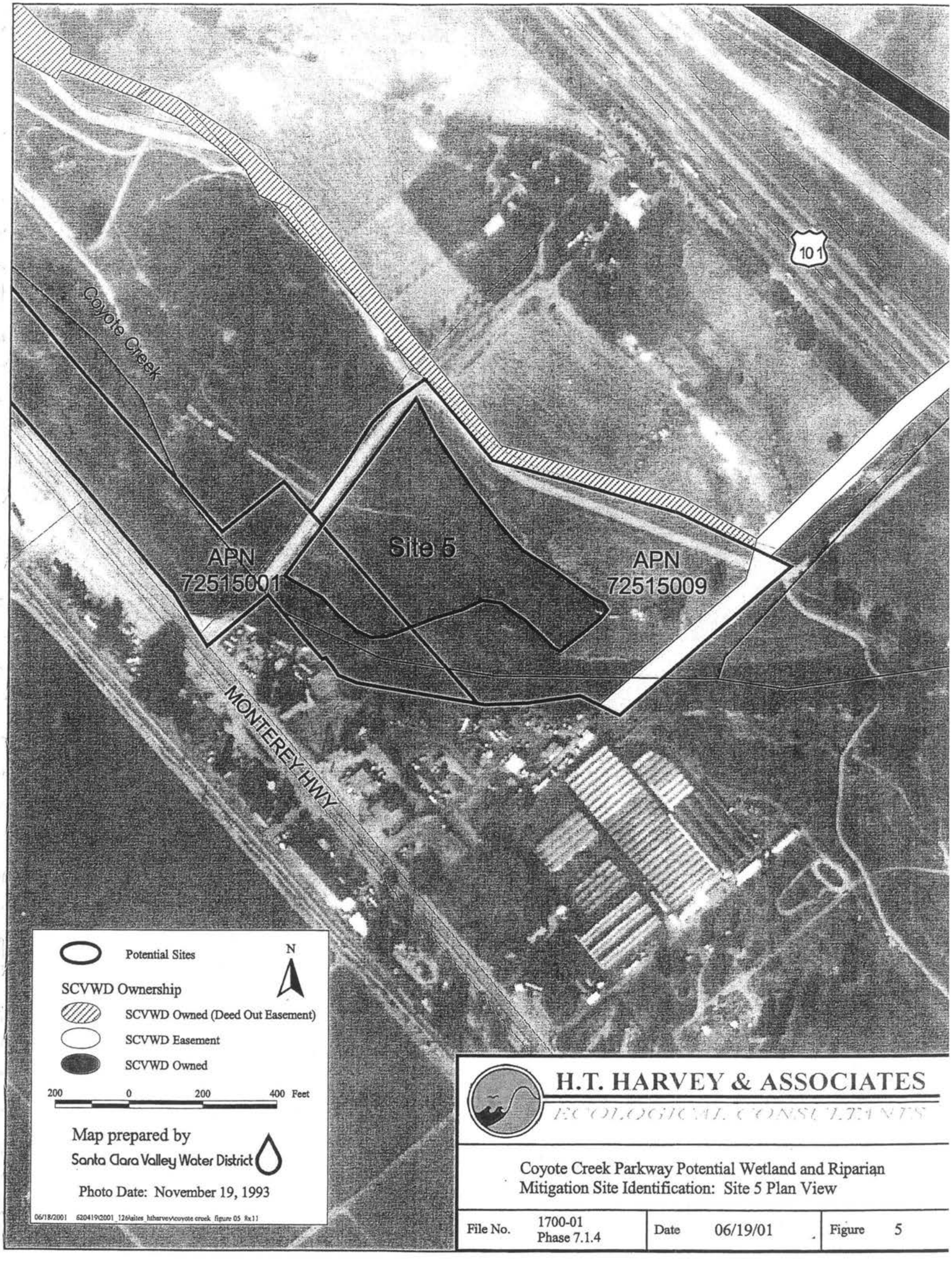
Existing Site Features/Conditions: The site is an open field immediately adjacent to the Coyote Creek corridor. It is located to the north and east of the corridor. The equestrian trail passes through the site. The site currently supports herbaceous, weedy vegetation including poison hemlock (*Conium maculatum*) and mustard (*Brassica* ssp.). It is devoid of large, woody vegetation except for the portion of the site immediately adjacent to Coyote Creek. This adjacent riparian vegetation includes sandbar willow (*Salix exigua*), Fremont cottonwood, and California black walnut. According to the Soils Conservation Service, this site is mapped as Cortina very gravelly loam, 0 to 5 percent slopes (Soil Conservation Service 1968). This well-drained soil is characterized by sandy loam, fine sandy loam, or loam with a gravelly consistency.

Conceptual Design Opportunities: Riparian corridor habitats could be expanded and improved and/or wetlands might be established by grading the site down approximately 2 to 5 feet to intercept groundwater or to receive periodic inundation from Coyote Creek. Riparian habitat could also be established at the site through minor contour grading and planting of native trees and shrubs such as red willow and valley oak. The presence of sandbar willow on-site indicates that the water table is likely shallow.

Constraints: The equestrian trail would have to be re-routed around the perimeter of the site, leaving a 50 to 60-foot buffer from the roads. Large culverts pass underneath Coyote Ranch Road at the site's southwestern corner indicating that the site is subject to inundation and may currently serve to reduce localized flooding. The project should not increase flooding nor be susceptible to flood damage. A restoration design that utilized flood flows from Coyote Creek could change local flood patterns (hydraulic analysis required). In addition, it must be confirmed that no seasonal wetland habitat is currently present.

Topographic Survey Summary: Ground: 246-247 ft. over most of the site; creek thalweg: 241 ft.; pipe inverts: 243-244 ft.

Future Needs: Irrigation for plant establishment, access for site maintenance and monitoring.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Map prepared by
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Photo Date: November 19, 1993
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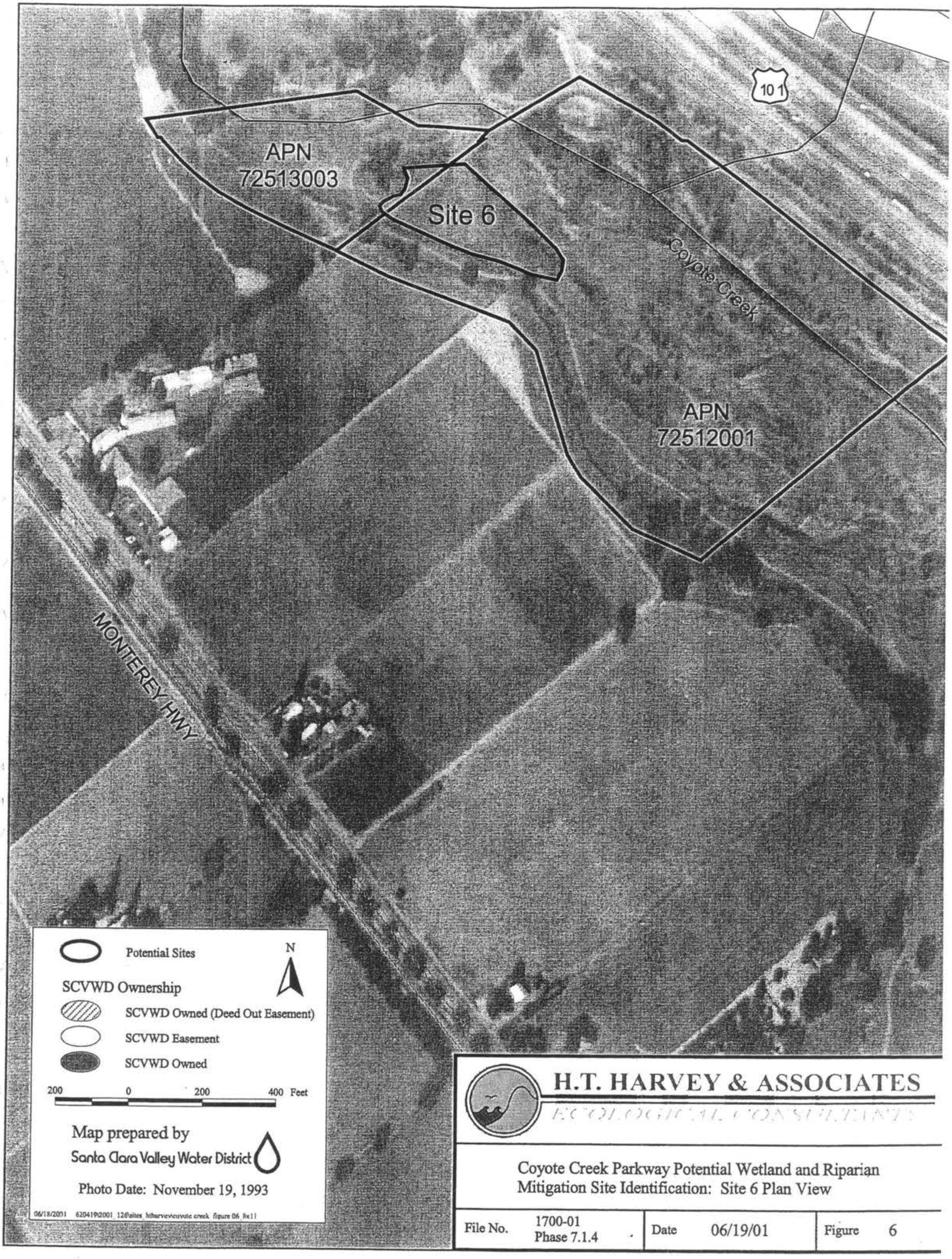
Coyote Creek Parkway Potential Wetland and Riparian Mitigation Site Identification: Site 5 Plan View

File No.	1700-01 Phase 7.1.4	Date	06/19/01	Figure	5

Notes: Calpine plans to bring in a gas line across Highway 101 in the future. The line will be 60 feet below the creek and Site 5. There will be a drilling site for gas line installation on part of Site 5.

Status/Rationale: Rank 1 (high potential). This site provides a good opportunity to expand the riparian corridor. Based on topographic surveys, it appears that minimal, if any, contour grading would be required to bring ground elevations down to the creek bank level. In addition, it was noted that sandbar willow is expanding on the site via vegetative reproduction indicating that the site supports appropriate soils and high soil moisture. While future studies should examine if mitigation development would increase the potential for flooding in the site vicinity, this site is still highly ranked.


101
APN
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Site 6
Coyote Creek
APN
72512001
MONTEREY HWY
Potential Sites
SCVWD Ownership
SCVWD Owned (Deed Out Easement)
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Coyote Creek Parkway Potential Wetland and Riparian Mitigation Site Identification: Site 6 Plan View

File No.	1700-01 Phase 7.1.4	Date	06/19/01	Figure	6

Future Needs: Irrigation for plant establishment, access for site maintenance and monitoring. The equestrian trail, if present, may need to be re-routed.

Notes: None

Status/Rationale: Rank 4 (moderate-low potential). Because of the high site elevations, as determined by the topographic surveys, extensive grading may be necessary to access groundwater for wetland habitat establishment. The creek channel is actively braiding through this reach, and it is not clear whether creating a broader channel is desirable. Further studies examining the geomorphic, hydrologic, and soil conditions of the site are warranted. However, the location amongst the Riverside Drive Site for the VTA Measure B Consolidated Mitigation Project may still be of value.

3.2.8 Coyote Creek Potential Mitigation Site 7

Name: Coyote Creek Golf Course North

Location: West of Coyote Creek Golf Course; east of Coyote Creek; contained within the stretch of creek designated for VTA mitigation. See Figure 7 and Appendix A.

Assessor's Parcel Number: 725 09 001

Approximate Size: 7.7 acres (from planimetry of VTA map)

Potential Use: Riparian or wetland creation or restoration

Existing Site Features/Conditions: The site is a large open terrace located just east of Coyote Creek. The bike path forms the eastern border of the site. The site is vegetated primarily with non-native grasses and forbs, but sparse mature, woody vegetation is also present. The site flooded during the El Niño year, 1997. A creek, fed in part by a Coyote Canal leak, drains the hill across Highway 101 and traverses the terrace just north of the site.

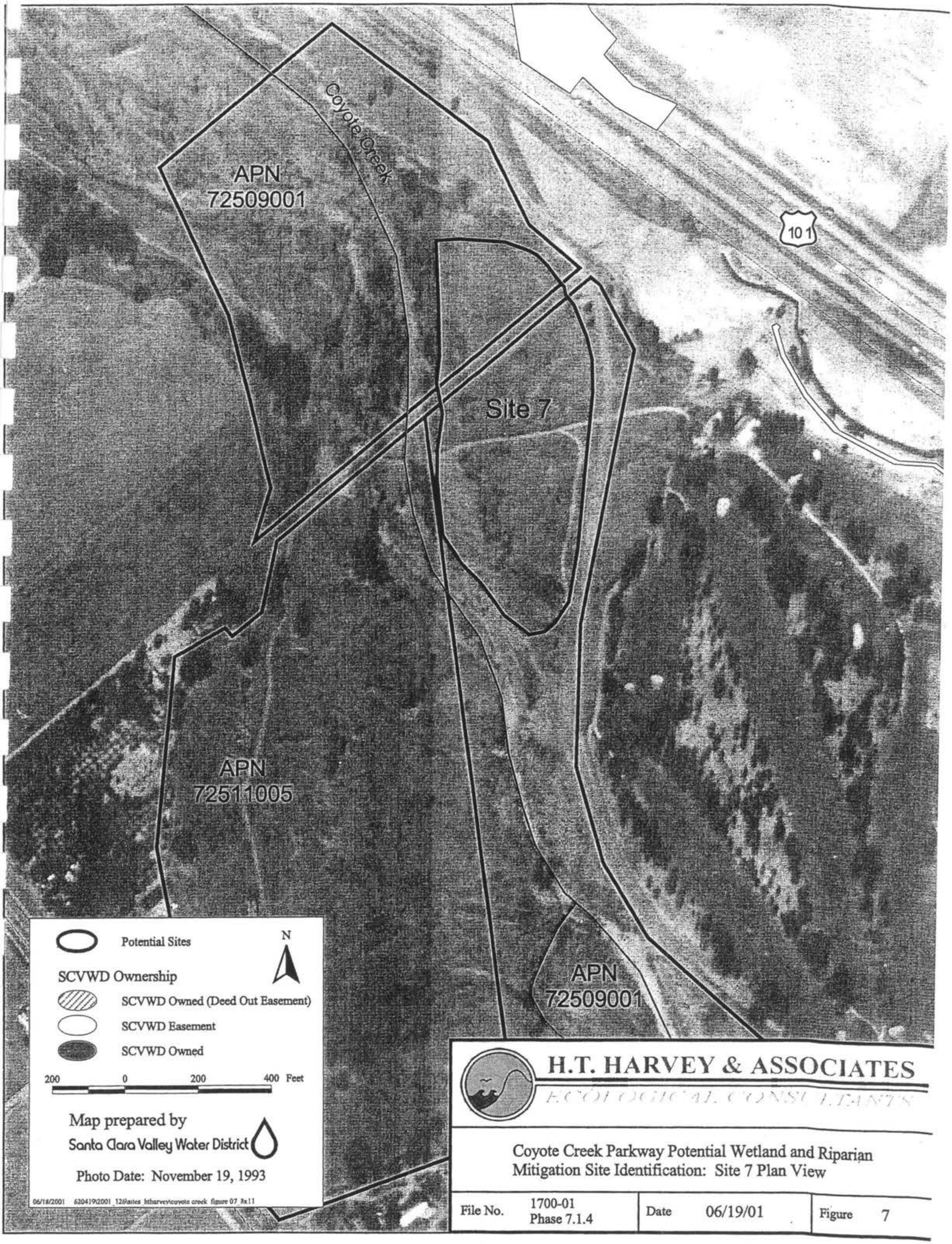
Conceptual Design Opportunities: To create wetland habitat, the site would need to be excavated to either capture groundwater or flows from Coyote Creek. With the aid of irrigation, riparian habitat might be established with little grading. The soils are also quite porous with many gravels and cobbles. However, soils would need to be thoroughly examined to determine if they are appropriate for wetland vegetation establishment. Riparian habitat could be established on-site if the soils and other physical features were deemed capable of supporting such species. Coyote Creek Golf Course may be a potential source of water for irrigation needs.

Constraints: The soils are very rocky and may be too coarse and porous for either wetland or riparian habitat establishment. Large-scale grading would be required to lower the site's elevation to potentially capture groundwater or secondary Coyote Creek flows. A PG&E easement and power lines cross a portion of the site. A water pipeline for the golf course is along the tower alignment. These features may limit site use. In addition, it may be very difficult to supply the site with irrigation water for the mitigation plants due to its distance from water sources. The cost of irrigation would likely be very substantial and would be a significant constraint to mitigation.

Topographic Survey Summary: Site elevations are 4 to 5 feet above the creek channel at the southern (upstream) end of the site and 8-10 feet at the northern end.

Future Needs: Irrigation for plant establishment, access for site maintenance and monitoring.

Notes: County Parks would like to reduce bike path flooding here by either raising the elevation of the path or installing a berm between Site 7 and the path.



Map prepared by
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Photo Date: November 19, 1993

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Coyote Creek Parkway Potential Wetland and Riparian Mitigation Site Identification: Site 7 Plan View

File No.	1700-01 Phase 7.1.4	Date	06/19/01	Figure	7

3.2.10 Coyote Creek Potential Mitigation Site 9

Name: Gravel Ponds

Location: This site is located within a series of abandoned gravel quarry ponds. It is situated just north (downstream) of the Riverside Drive crossing over Coyote Creek on the western bank of the creek. The site is contained within the stretch of creek designated for VTA mitigation. See Figure 9 and Appendix A.

Assessor's Parcel Number: 725 100 18

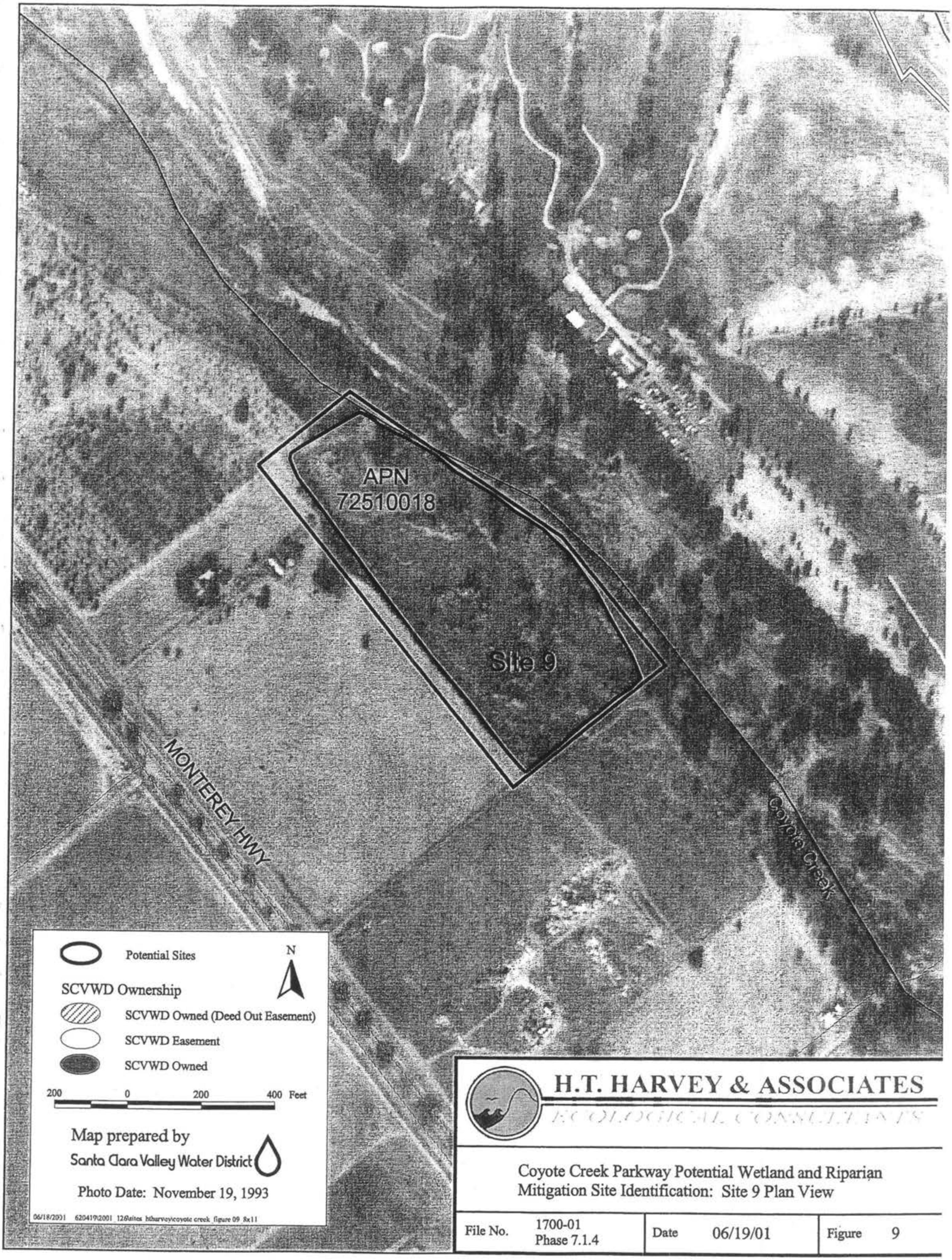
Approximate Size: 9.7 ac (from GIS of blue line maps)

Potential Use: Wetland and riparian creation/enhancement, improvement and expansion of existing wetland and riparian habitat

Existing Site Features/Conditions: The site consists of several abandoned, deeply excavated, gravel quarry ponds separated from each other by large gravel mounds. Some mounds are more than 20 feet in height. The gravel ponds likely hold water perennially. The ponds may be at different elevations thus affecting water flows between the ponds. This site is fairly distant from the Coyote Creek low flow channel and is not likely to be affected by, or affect, Coyote Creek flows. The equestrian trail borders the ponds.

The conglomerate of gravel ponds consists of a medley of upland vegetation adjacent to emergent marsh and riparian vegetation and open water. Emergent marsh species include cattails, umbrella sedge (*Cyperus eragrostis*), bulrush (*Scirpus* spp.), dock (*Rumex* spp.), and others. Riparian fringe species include Fremont cottonwood, sandbar willow, coyote brush, red willow (*Salix laevigata*), and California sycamore. Other riparian tree species include California bay (*Umbellularia californica*), blue elderberry, and California buckeye (*Aesculus californicus*). Upland tree species present include coast live oak.

Conceptual Design Opportunities: To expand the existing wetland and riparian fringe around the porous gravel ponds, the perimeter of the ponds could be graded back. This would require partial excavation of the mounds between the ponds. This could result in a continuous complex of wetland and open water. Wetland and riparian vegetation could colonize the expanded wetland perimeter by natural recruitment and planting (provided the soils are adequate). It may be desirable to partially fill some of the ponds with material from the upland areas to create wetlands within areas that are currently open water. The elevation of groundwater at this site is unknown, but it appears to be relatively high, and would be the water source for wetland fringe expansion. Irrigation would likely be unnecessary.



Map prepared by
Santa Clara Valley Water District

Photo Date: November 19, 1993

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Coyote Creek Parkway Potential Wetland and Riparian Mitigation Site Identification: Site 9 Plan View

File No.	1700-01 Phase 7.1.4	Date	06/19/01	Figure	9

Constraints: Project benefits (in terms of acreage of new habitat) may not outweigh the project costs due to the need for extensive grading and likely impacts to existing wetland and riparian habitat. Soils are extremely porous due to the predominance of gravels and cobbles, and may not be conducive to plant growth. Equipment access for grading might be difficult and expensive. In addition, the volume of grading could be significant. Although the site is within a reach of Coyote Creek that is being utilized as mitigation for the VTA, it does not appear to conflict with existing plans.

Topographic Survey Summary: Water depth in the pond with a staff gage was 6 feet. This pond bottom (i.e. bottom of staff gage) is 4 feet lower that the adjacent creek thalweg.

Future Needs: Access for site construction, monitoring and maintenance. May require re-routing the equestrian trail several feet to the west.

Notes: None

Status/Rationale: Rank 3 (moderate potential). This site has the best potential of the Coyote Creek Parkway potential mitigation sites to provide passive wetland hydrology. Further determination of development potential depends on an evaluation of the amount and type of habitat improvement achieved compared to temporal impacts incurred by habitat reconfiguration, construction feasibility, and permitting or mitigation required for implementation. This site is also in close proximity to the VTA Riverside Drive Site.

3.2.11 Coyote Creek Potential Mitigation Site 10A

NOTE: Please refer to *the Coyote Lakes Park (Coyote Creek Parkway Site 10) Wetland and Riparian Mitigation Opportunities and Constraints Analysis* (H. T. Harvey & Associates 2001) for updated site, conceptual design, and constraints information.

Name: Coyote Lakes A

Location: Immediately southwest of Highway 101 and downstream of Parkway Lakes and the District's Coyote Percolation Pond. See Figure 10.

Assessors Parcel Number: 678 02 017

Approximate Size: 10.5 acres (Acreage calculation from digitization of aerial photograph flown July 18, 1995)

Potential Use: Wetland creation

Existing Site Features/Conditions: The site is a relatively flat field immediately adjacent to the Coyote Lakes and Highway 101. The site supports ruderal, non-native vegetation. A forested levee separates the site from the Coyote Percolation Pond toward the southwest. Toward the northwest, the site abuts an inundated gravel pit (Site 10B), which borders Coyote Creek.

Conceptual Design Opportunities: A wetland basin could be excavated and supplied with water from the Coyote Percolation Pond. Minimal grading would be required since the site is several feet lower than the water level in the Percolation Pond. A water delivery and control structure would be required, and possibly a water outlet structure. Native trees and shrubs could be established around the site to create a "riparian fringe".

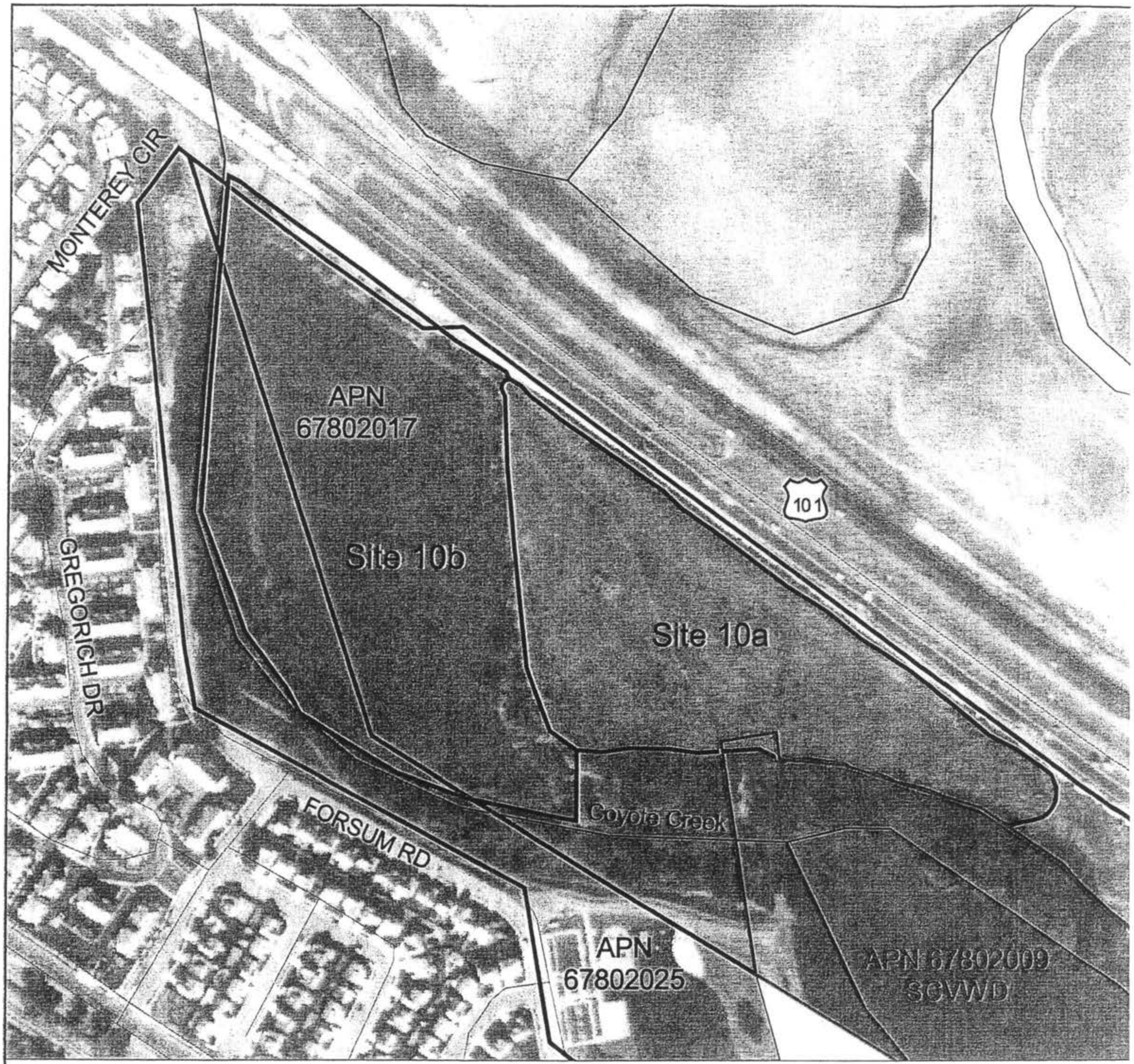
Constraints: Because the site is several feet lower than the Percolation Pond, the project must be designed to prevent unwanted, excess inundation off the site or adjacent property. Biological values of the site could be somewhat compromised due to its close proximity to Highway 101. Installation of the water delivery system may impact existing vegetation.

Topographic Survey Summary: For a summary and results of the topographic surveys for this site, please see the *Coyote Lakes Park (Coyote Creek Parkway Site 10) Wetland and Riparian Mitigation Opportunities and Constraints Analysis* (H. T. Harvey & Associates 2001).

Future Needs: Access for construction, monitoring, maintenance and operation.

Notes: None

Status/Rationale: Rank 1 (high potential). This site has been proposed for mitigation for the District's stream maintenance projects.



Map prepared by
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Photo Date: November 19, 1993

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Coyote Creek Parkway Potential Wetland and Riparian Mitigation Site Identification: Sites 10A and 10B Plan View

File No. 1700-01 Phase 7.1.4
Date 06/19/01
Figure 10

3.2.12 Coyote Creek Potential Mitigation Site 10B

NOTE: Please refer to the *Coyote Lakes Park (Coyote Creek Parkway Site 10) Wetland and Riparian Mitigation Opportunities and Constraints Analysis* (H. T. Harvey & Associates 2001) for updated site, conceptual design, and constraints information.

Name: Coyote Lakes B

Location: Immediately northwest of Site 10A; between Site10A and Coyote Creek. See Figure 10.

Assessors Parcel Number: 678 02 017, 678 02 025

Approximate Size: 10 acres for pond only (from planimetry of VTA aerial); 16.6 acres including pond plus mid-line of creek and immediately adjacent upland area (from GIS of blue lines)

Potential Use: Wetland creation with some potential riparian creation/restoration

Existing Site Features/Conditions: Site 10B consists of an inundated, unvegetated, gravel pond and the adjacent eastern bank of Coyote Creek. The creek bank is fairly narrow, and supports sparse woody vegetation dominated by native species. It appears that water flows from the creek into the gravel pond via a break in the bank.

Conceptual Design Opportunities: The design would comprise both Site 10A and 10B. The sites would be combined to create one continuous wetland/open water complex. The general approach would be to reduce the elevation difference and eliminate the boundary between the gravel pond (10B) and adjacent upland (10A). This would require excavation of Site 10A, some filling of Site 10B, and overall re-contouring. Water would be supplied via groundwater or the creek. The creek bank may be restructured in order to eliminate the uncontrolled flow between the creek and off-stream pond, and potentially increase the quality of forested habitat on the bank by increasing bank width, forest width, and cover. Water control structures may be required.

Constraints: Large scale grading and reconfiguration are required. Groundwater elevation is currently unknown. Groundwater must be high enough to adequately supply water to the site. If groundwater is too deep, the extent of grading might be prohibitive. The project would impact existing aquatic and riparian habitat.

Topographic Survey Summary: For a summary and results of the topographic surveys performed for this site, please see the *Coyote Lakes Park (Coyote Creek Parkway Site 10) Wetland and Riparian Mitigation Opportunities and Constraints Analysis* (H. T. Harvey & Associates 2001).

Future Needs: Access for construction, monitoring, maintenance and operation.

Notes: None

Status/Rationale: Rank 2 (moderate-high potential). Depending on groundwater and creek hydrology, the site has potential for habitat improvement. Development of the site would have some impact on existing biological resources. Also, as with Site 9, permitting or mitigation required for implementation would also need to be determined. The development potential for Site 10B will likely be further evaluated as part of the Site 10A design process.

3.2.13 Coyote Creek Potential Mitigation Site 11

Name: Burnett Avenue

Location: Immediately northwest of Burnett Avenue, southeast of Highway 101, and south of Coyote Creek. See Figure 11.

Assessors Parcel Number: 729 50 001, 729 50 002

Approximate Size: 39.7 acres (from GIS of blue lines)

Potential Use: Riparian or wetland creation.

Existing Site Features/Conditions: The site sits on a terrace approximately 5-10 feet above the creek. The equestrian trail runs immediately parallel to the creek on its southern side. Some power poles are also located on the southern side of the creek. A remnant orchard remains on a small portion of the site. A manmade drainage, Cochrane Channel, and the District's Cross Valley pipeline run parallel to Highway 101 on the site's western edge.

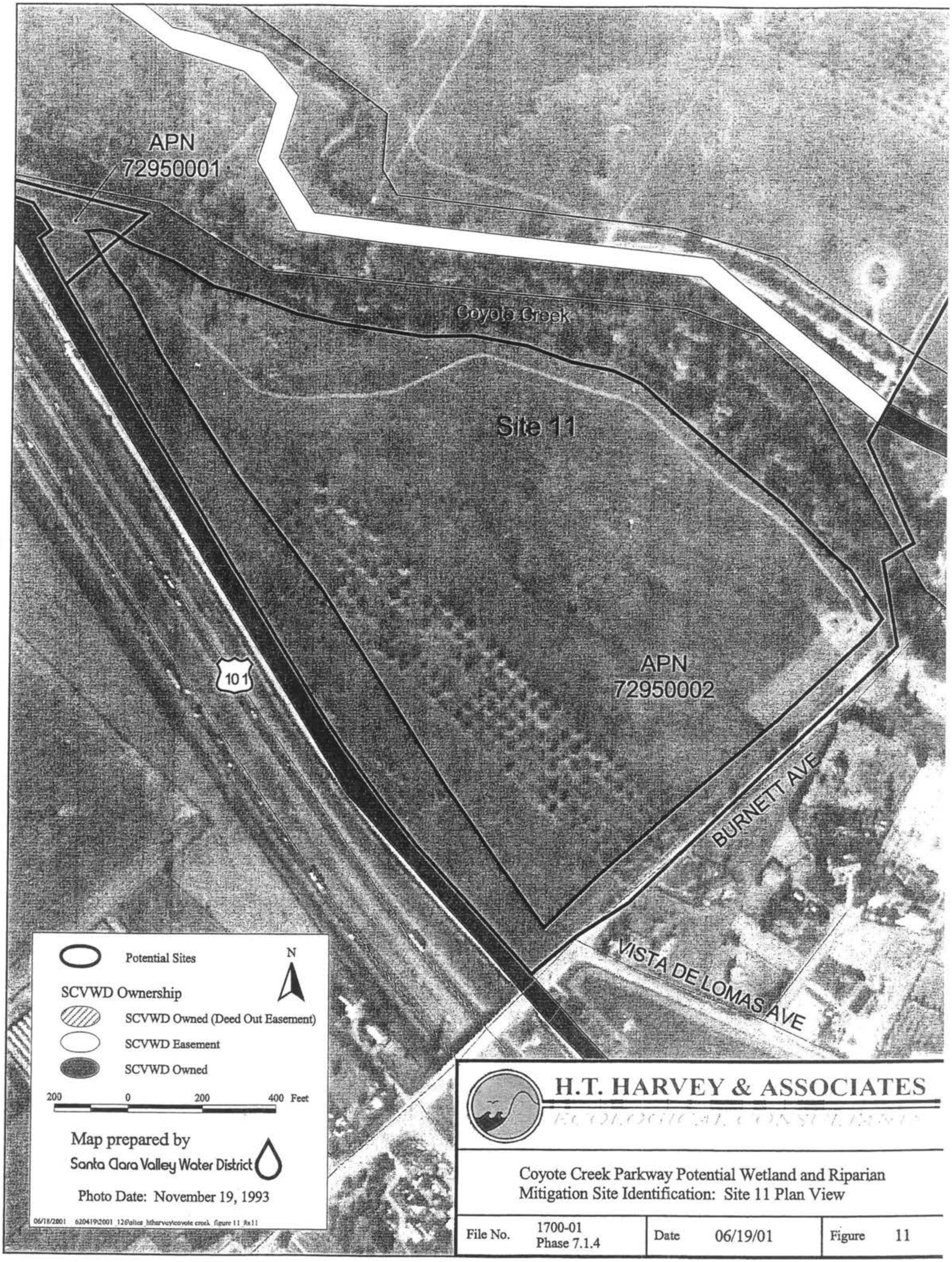
The site supports ruderal non-native, annual grassland. Occasional tree and shrub species include California sycamore and coyote brush. Invasive, non-native species include yellow star-thistle. The adjacent segment of Coyote Creek supports dense, mature riparian forest.

Site soils are mapped as Cortina Very Gravelly Loam and Garretson Gravelly Loam (Soil Conservation Service 1968). These soils have a substratum of sands and gravels, and are well to excessively well drained.

Conceptual Design Opportunities: There are two potential approaches. One involves modification to a strip of land adjacent to the riparian edge for riparian expansion and possibly wetland creation; the other involves modifications further away from the creek for wetland creation. Either one or both approaches could potentially be done on the site.

Alternative 1

Initial evaluation: Depending on site elevations in comparison to the creek bed, the terrace area near the creek could be graded down to allow seasonal floods from Coyote Creek to spill into the site. This connection to Coyote Creek could allow for the establishment of seasonally flooded, wetland and/or riparian habitat. This type of feature would be located near the existing riparian corridor, and would extend out no farther than 300 feet from the riparian edge. This area comprises approximately 15 acres. Soils would likely need to be imported to decrease permeability and support plant growth. The equestrian trail could be re-routed along the outside edge of the mitigation area.


APN
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Potential Sites
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Map prepared by
Santa Clara Valley Water District
Photo Date: November 19, 1993
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Coyote Creek Parkway Potential Wetland and Riparian
Mitigation Site Identification: Site 11 Plan View

File No.	1700-01 Phase 7.1.4	Date	06/19/01	Figure	11

Re-evaluation after obtaining topographic data: Site 11 lies on the west bank of Coyote Creek and is situated approximately 6 feet (4 – 8 feet) above the ground elevation of the eastern floodplain of the creek. Based on a preliminary assessment of channel capacity, Coyote Creek begins to flow out of bank on the east side at a flow of approximately 100 cfs. Excavation of a portion of Site 11 down to the elevation of the eastern floodplain would create active floodplain and the potential for riparian habitat expansion or possibly seasonal wetland creation. The level of excavation required to achieve this goal does not appear to be cost-prohibitive.

Alternative 2

Further away from the creek, the site might be excavated to create a wetland basin or basins. The basins would likely need to be over-excavated and re-filled with less permeable, imported soils that retain water, due to the coarse texture and well-drained quality of the existing substrate. Depending upon water availability, the Cross Valley Pipeline might be a source of water, in addition to incident rainfall. Groundwater levels may be within several tens of feet from the surface, and pumped groundwater may be another water source. The remnant orchard on-site could be utilized to create coarse, woody debris including snags and downed logs.

If done in conjunction with Alternative 1, this alternative would use the portion of the site remaining outside the Alternative 1 area (~ 15 acres) and the equestrian trail (~ 9 acres) and would total approximately 16 acres. If done alone, this approach might extend further towards the creek; however, the soil coarseness and drainage increase near the creek, making the substrate even less favorable for wetland.

Constraints: Alternative 1: The site is fairly high above the creek, and obtaining sufficient water for the first approach for either wetland or riparian habitat should be evaluated in greater detail. Connecting the site to the creek may result in grading impacts to existing mature riparian habitat that may require mitigation. Connecting to the creek may require water control structures. The equestrian trail will need to be realigned

Alternative 2: It will need to be determined if sufficient water is available to reliably supply wetland needs. The remnant orchard trees would need to be partially or fully removed. However, creation of snags and coarse woody debris could be incorporated into the site design. County Parks has indicated that this alternative is not likely to be consistent with future park plans, but that Alternative 1 is likely acceptable and compatible with Parks use.

Both Alternatives: The power poles may also need to be relocated outside of the site. Biological values of the site could be partially compromised due the site's proximity to Highway 101. County Parks plans to improve Burnett Avenue, and an adequate buffer to set the mitigation elements back from the roadway is planned. Existing soils may be unsuitable to sustain riparian plants or wetland hydrology, and significant excavation, importation, and soil modification will likely be required.

Topographic Survey Summary: The site floodplain is about 10 feet above the adjacent creek thalweg.

Future Needs: Access for construction, monitoring, maintenance and operation.

Notes: None

Status/Rationale: Alternative 1: Rank 2 (moderate-high potential). The site shows potential for expanding the Coyote Creek floodplain, but requires further hydrological evaluation to increase certainty of this feasibility and determine potential impacts to existing riparian features and suitability of soils.

Alternative 2: Rank 4 (low-moderate potential). This alternative, as proposed, is likely not consistent with County Parks' needs. However, the potential to create a more limited project should be explored.

3.2.14 Coyote Creek Potential Mitigation Site 12

Name: Near the Radio Control Model Airplane Area

Location: Located in between Highway 101, the Radio Control Model Airplane Area facilities, and the paved bike trail along Coyote Creek.

Assessors Parcel Number: 725 03 003

Approximate Size: 27 acres (planimetry of blue line maps)

Potential Use: Wetland creation.

Existing Site Features/Conditions: The site is located on a fairly level terrace north and east of Coyote Creek and the paved bike trail. The site appears to be about 10 feet above the creek. The site supports low vegetation, mainly consisting of ruderal, non-native, annual grasses and forbs. Site soils are mapped as Garretson Gravelly Loam (Soil Conservation Service 1968). These soils have a substratum of sands and gravels and are well drained. The Radio Control Model Airplane Park is directly west of the site; the "Ogier Ponds", a series of abandoned on- and off-stream gravel ponds are located just north. The freeway is to the east. The adjacent segment of Coyote Creek supports dense, mature riparian forest and includes one of the few examples of Sycamore Alluvial Woodland in the County.

Conceptual Design Opportunities: The site could be excavated to form one to several basins. The basins would likely need to be over-excavated and re-filled with less permeable imported soils in order to retain water, due to the coarse texture and well-drained quality of the existing substrate. The District's Coyote Canal is located 900 feet north and is at least 8 feet higher in elevation than the site. The canal usually transports diverted Coyote Creek water past the site from spring through fall (April 15 to October 15) and may be a seasonal source of water for the wetland. Groundwater levels may be within several tens of feet from the surface, and pumped groundwater may be another water source.

Constraints: All or part of the site may be part of County Park's planned future recreational expansion, and may not be available for use for mitigation. If all or part of the site is available, increased recreational use on the adjacent land in the future may result in elevated disturbance due to noise and human or pet intrusion. Potential future impacts should to be evaluated and accounted for in project design.

The operation of the mitigation site and the use of the existing model airplane park must be compatible. Existing soil may be unsuitable to sustain wetland hydrology, and significant soil modification will likely be required. Biological values of the site could be partially compromised due to the site's proximity to Highway 101.

Planned, future freeway entrance and exit ramps and a planned roadway may abut the northwestern edge of the site. Characteristics of these features should be determined to plan for long-term compatibility with mitigation site operation, including possibly providing setbacks from planned roadways and anticipating and offsetting impacts likely to occur during construction. A water delivery system from the Coyote Canal would need to cross the alignment of either the planned road or ramps. This scenario must be accounted for in system design.

Topographic Survey Summary: Topographic surveys were not performed for this site.

Future Needs: Access for construction, monitoring, maintenance and operation

Notes: None

Status/Rationale: Rank 5 (low potential). This site is unavailable for use by the District for mitigation at this time, according to County Parks.

3.3 PRIORITIZATION

Table 3 presents the current rankings of each site based upon the site analyses and rankings conducted by HTH, PWA, the District, and County Parks.

Six of the 12 sites were ranked in Category 5, the lowest mitigation potential category. Sites 1 West and 12 were both determined to be unavailable for mitigation project use, resulting in automatic allocation to Category 5. Sites 1 East and 2 were both eliminated because the riparian expansion area would remain separated from the existing riparian corridor by a paved recreational path, also resulting in automatic allocation to Category 5. The Site 4 riparian expansion alternative was also eliminated for this reason. The Site 4 wetland creation alternative was eliminated due to a strong constraint–prohibitive grading requirements. Site 3 was then eliminated, because without connection to Site 4, the size and potential impacts of development strongly outweighed potential benefit.

Four sites were ranked in Category 4, with moderate to low potential. Sites 6, 7, and 8 were located within the same reach as VTA's Riverside Drive mitigation area. All of these sites, while having some potential for either wetland creation or riparian expansion, have substantial constraints. For example, Sites 6 and 7 are in an unstable area that may be prone to channel realignment and sediment scour. Sites 6 and 8 are both fairly small and would require significant grading to bring them down to the level required to establish riparian hydrology. However, the fact that these sites are adjacent to the VTA Riverside Drive Mitigation Site may give them added value. Alternative 2 for Site 11, the fourth Category 4 site, is a potential wetland creation area. This site was ranked low due to a potential, future, recreational use of most of the site by County Parks.

Site 9 was the only site ranked in Category 3, moderate potential. This site has the best potential of any identified site to provide passive wetland hydrology and presents an opportunity for enhancement of existing wetland. However, substantial potential constraints, including project impacts to existing wetlands, are present.

Sites 10B and Alternative 1 for Site 11 were all ranked in Category 2, with moderate-high potential for wetland or riparian creation or expansion, or both. Each of these sites has potential technical issues that require further study to more clearly determine opportunities and constraints.

Sites 5 and 10A were the only sites ranked in Category 1, high potential. Wetland or riparian habitat could be established at Site 5 by grading the site down to intercept groundwater or to receive periodic inundation from Coyote Creek. Riparian habitat could also be established at the site through minor contour grading and planting of native trees and shrubs. Site 10A would primarily consist of creation of a basin to support a wetland with fringing riparian habitat. Although the site will likely require a managed water supply, the ready availability of water and the lack of apparent substantial biological or technical constraints to development merited allocation to the highest category. Site 10A has been recommended for development and is identified as mitigation for wetlands impacts in draft CEQA documents for the District's Stream Maintenance Program and 2001 Maintenance Projects.

Table 3. Mitigation Site Rankings

	Current Mitigation Potential/Ranking				
Site	**1 High Potential**	**2 Moderate-High**	**3 Moderate**	**4 Moderate-Low**	**5 Low**
1 West					X
1 East					X
2					X
3					X
4					X
5	X				
6				X	
7				X	
8				X	
9			X		
10A	X				
10B		X			
11-Alt 1		X			
11-Alt 2				X	
12					X

4.0 CONCLUSIONS

4.1 RECOMMENDATIONS

The rankings shown in Table 3 indicate that Sites 5, 9, 10A, 10B, and 11 (Alternative 1) have moderate or higher potential for riparian or wetland habitat creation or restoration. Since an opportunities and constraints report has already been prepared for Sites 10A and 10B (H. T. Harvey & Associates 2001), it is recommended that Sites 5, 9, and 11A be explored further for mitigation potential, if these properties become available for District use. Also worth further consideration, is a smaller version of the Alternative 2 project on Site 11 that might be compatible with County Parks' uses.

Additional studies may include an examination of the soils, preliminary hydrological analyses, more detailed evaluation of potentially constraining biological site features such as jurisdictional habitats and sensitive species habitat, and more detailed description of design elements and alternatives. Cultural resources could be present, based on several known sites in the vicinity, and an initial assessment of potential cultural resources on each site is recommended. In addition, the entire Coyote Creek Parkway could be examined for areas where non-native or invasive species could be removed and revegetated.

Several low-ranked sites are separated from the adjacent riparian corridor by the paved pedestrian and bike path. Although these sites may not be suitable for riparian mitigation, they may provide good opportunities to enhance the riparian environment by extending the forested area beyond the existing riparian strip. Upper terrace riparian and upland trees and shrubs might be planted to form more complex woodland and forest habitats than the existing non-native, weedy, grasslands. Such areas might be suitable for enhancement purposes (i.e. non-mitigation related environmental improvement) or for upland forest mitigation.

5.0 REFERENCES

H. T. Harvey & Associates. 2000. Santa Clara County Valley Transportation Authority 1996 Measures A+B Transportation Improvement Program Riparian and Wetland Habitats Mitigation and Monitoring Plan. Project Number 1593-08.

H. T. Harvey & Associates. 2001. Coyote Lakes Park (Coyote Creek Parkway Site 10) Wetland and Riparian Mitigation Opportunities and Constraints Analysis. Prepared for the Santa Clara Valley Water District. Project Number 1700-01 (Phase 7.1.4).

Soil Conservation Service. 1968. Soils of Santa Clara County. Soil Conservation Service Persónnel: Morgan Hill, California.

Appendix A. Location of District Sites 6, 7, 8, and 9, VTA Riverside Drive Mitigation, and the City of San Jose's Bailey Avenue Mitigation Site